

MODIS Technical Team Meeting
Thursday, November 21st, 2002
Building 33, Room E125

Vince Salomonson chaired the meeting. In attendance were Barbara Conboy, Robert Wolfe, Steve Kempner, Bruce Guenther, Mike Teague, Wayne Esaias, Dorothy Hall, Bob Barnes, Skip Reber, Eric Vermote, Michael King, and Shaida Johnston, with Yolanda Harvey taking the minutes.

1.0 Upcoming Events

- IGARSS 2003, July 21-25, 2003, Toulouse, France (abstracts due by January 17, 2003) <http://www.igarss03.com/>

2.0 Meeting Minutes

2.1 General Discussion

Vince Salomonson reminded everyone that the Technical Team will not meet again until December 12th, 2002.

Salomonson reported that MODIS was well represented at the EOS IWG – over half of the posters were about MODIS, and the results presented were very good. There were a lot of good presentations, and there was a good mix of different topics.

Salomonson noted that the AIRS/AMSU team believes they have or are capable of providing an excellent sea surface temperature product albeit at a spatial resolution much less than that of MODIS. Salomonson indicated that, indeed, the AIRS/AMSU capability in general is very powerful, and once the instrument gets a clear view, it's could provide useful comparisons to MODIS. They only get cloud-free observations 5% or somewhat less of the time. He expressed the opinion that, as proposed at the IWG by Dr. Chahine (JPL and AIRS P.I.) holding a workshop sometime in the future to compare all SST products to one another would be interesting and useful. Salomonson concluded that it was a very exciting IWG meeting.

Salomonson said that he wants to have a discipline leaders meeting soon, and more planning needs to happen for the next Science Team Meeting. He is specifically waiting for the "recompetition" NRA to be released and the announcement of the dates for the annual data products review at HQ (usually chaired by Martha Maiden/HQ) to be announced before deciding when and how to hold a Science Team meeting.

Shaida Johnston brought up the issue of users' ease of access to MODIS data. She identified the GUI (graphical user interface) as needing work, especially since there are so many confusing PGE numbers and validation levels. She suggested meeting and talking specifically about how the team can make data access easier, and would like to see this happen before MODIS goes into Collection 5. Michael King mentioned that the Atmospheres group has come up with a new Level 2 MODIS data product that will make data easier to access and understand. The new product will take the output from different PGEs and create a unified, small file that gives 5- or 10-kilometer sampling of

granules for a number of Atmospheres products. All of this will then be able to fit on a CD and will hopefully be easy to use and give users the answers they need. He added that Oceans might be able to do the same sort of thing, though he thought that it would be impractical for Land, since they deal with high-resolution data. King estimated that this could be finished in about a month. Steve Kempler pointed out that they still have to get ESDTs lined up, which will take longer than a month. Salomonson indicated that he felt this particular approach being developed by King is a good idea and that the other disciplines might want to consider similar ideas.

King raised some concerns about the revised MODIS Data Products Handbook, citing errors with images that he would like to see fixed. He asked that team members, especially discipline leaders, to look at the draft to make sure that everything is correct before it goes to print sometime after Thanksgiving.

2.2 Instrument Status

Guenther raised some concerns about changing the a_0 term to 0 (zero). He suggested that it may take cloud products a step backwards in reprocessing, and he requested a meeting with the concerned parties. Johnston asked if this would affect the current L1Bs in production now, and Guenther replied that what he is concerned most about is that the cloud products will then be of a lower quality in some places than they were at Terra launch two years ago. Johnston noted that the L1Bs have been available and tested, and that Atmospheres has not had any problems with them. Guenther replied that if the a_0 term is set to 0, there would be striping in Moeller's products, and perhaps more significant problems. Johnston suggested testing to see if such an effect will actually occur.

Salomonson noted there are indications that both MISR and Aqua MODIS radiances/reflectances are larger in the visible and near-infrared range than Terra MODIS, and was curious as to why apparently/reportedly Aqua MODIS and MISR would both differ in the same direction. He suggests this question will need to be followed closely.

2.2.1 Aqua MODIS

No new issues.

2.2.2 Terra MODIS

No new issues.

2.3 DAAC

Kempler reported that the Goddard DAAC is processing Aqua MODIS data at approximately 1x, and Terra MODIS at around 2x. The database problems are solved, and the data pool is back up. Johnston noted that the data pool is still inoperative at the EDC DAAC. Kempler continued that the L1A Oceans subsets are not voluminous and will easily be made available through the data pool for a retention of 4 days. The data will be available to the public, but he noted that there is no documentation for it yet. Esaias agreed that documentation is important. Kempler said that it will take a little while to create, and documentation availability will be coordinated with the Oceans group to keep user expectations current.

Salomonson asked how ECHO is doing. Robert Wolfe said that he met with the ECHO people last Wednesday (November 13th, 2002), who showed him a shopping cart feature that they developed with ONRL. The shopping cart was very nice, had the right functionality, and he's currently working with Robin Pfister on software that will create a simple html string for the browse sites that will fill DAAC shopping carts with data chosen on the browse sites. He added that it is getting very close to the desired functionality, though there are some details left to work out, but overall the process will be very straightforward. Jacques Descloitres will be putting this feature up on his site when it's completed. Salomonson added that David Herring (General Editor of the [Earth Observatory](#) site) is working on making data available via the EO, and it would be worthwhile to meet with him. Wolfe agreed that meeting with Herring is a good idea.

2.4 MODAPS

Mike Teague reported that they are able to process at 3x on the forward machine if they need to. On Aqua data, they are about 2-3 days behind the leading edge, which is a lot closer than they have been recently. There are still some GBAD problems, and they closed out a couple of days at less than 100%. They have had to put Oceans on hold for a couple of weeks, and the group has agreed to restart using existing PGEs until new versions arrive.

On Terra, they are 3-4 days behind the leading edge. They are experiencing continuing EDOS problems (they are working on hardware updates), and MODAPS has not had reprocessing machines available, though that will change soon. Atmospheres has been on hold since November 1st. They were waiting on a data day, which has since come in. Processing and reprocessing will resume in the next couple of days, after load testing is complete. They have closed 78 days of Collection 4 data, which equates to a very good rate of 3x overall.

The third Land science test is now complete with a couple of exceptions – there's a problem in the production rule implementation for Dr. Wan's PGE31, and they are checking on the results from PGE16. Everything else is completed and is being reviewed by the Land scientists. Wolfe said that he had a meeting this afternoon with the Land science team, and they have asked for a fourth science test. There was an issue with the way the internal cloud mask for the MOD09 product is being set that affects downstream products. Those affected would like to have another test. To do that testing, MODAPS is asking for changes to be in by December 2nd, 2002, and the test would be scheduled to start soon afterward. They would then start reprocessing Land around December 16th instead of the 1st. Salomonson asked if moving the date for Land reprocessing would create problems for data storage, and Teague replied that disk space will start getting tight. One solution is to chop off some data from the front end; another is to ask the Goddard DAAC to stop Level 1 reprocessing until Land can begin reprocessing. Wolfe said that the Land group feels that stopping L1 reprocessing for two weeks is the best solution. Atmospheres can go ahead and reprocess the data received from the DAAC up to December 1st. The end result is that the end date for Land/Atmospheres reprocessing will be pushed out by a couple of weeks, which Johnston said would be a little inefficient, but wouldn't really hurt.

Salomonson asked about Collection 3 forward processing, and Wolfe said that it would continue to be processed. Salomonson noted that this will extend the length of the Collection 3 record for Land, and Teague responded that Land has a large window for

reprocessing anyway. Salomonson also noted that this would delay Collection 5 for Oceans. Esaias said that when they get to the September 1st 2001 data day, they would like to join into the reprocessing. That date is when the MCST M1 errors stopped decreasing and started diverging. Johnston noted that Teague will have to figure out how to reprocess all three disciplines at once, and Wolfe noted that there is some available hardware that should be able to help with the load. This may not necessarily impact the schedule. Teague added that he didn't think it's a big problem.

Teague noted that the EDC/NSIDC load test happened last week and was partially successful, though there were some software problems. It appears that both can ingest at 6x. They restarted the test on November 20th, 2002, and it's going well, though there were some small network problems. Both MODAPS machines are running at 4x using Collection 4 PGEs, and are reprocessing at 4x to 5x and forward processing at 2 to 2.5x. The test will be completed Sunday November 24th, 2002.

2.5 Land

Eric Vermote reported that he has finished the snow portion of the MMDS CD. Salomonson added that it has a very high level of detail, and it is almost ready to go out. Vermote concluded that there are a couple of things left to fix, all of which will probably be done by next week.

2.6 Atmospheres

King said that they are redoing the data-day calendars on the [Atmospheres website](#) so that users can see which granules were produced on Aqua and Terra MODIS by date, and determine which PGE version produced the product.

2.7 Cryosphere

Dorothy Hall reported that the group has completed a prototype for the sea ice climate modeling grid (CMG) product, which includes sea ice extent and ice-surface temperature.

3.0 Action Items

3.1 New Action Items

3.1.1 King and Kempler to work together on getting ESDTs for the new Atmospheres L2 data product.

3.1.2 Kempler to coordinate with Oceans group on creating documentation for the DAAC on the new Oceans L1A data subsets.

3.1.3 Wolfe to contact Herring about the shopping cart feature for the Earth Observatory website.

3.1.4 Teague to send Kempler and Alcott an email about the DAAC stopping L1 reprocessing for a couple of weeks to wait for the Land reprocessing to begin.

3.2 Old Action Items

None.